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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TC 2100 MAIL ROOM  
JUL 24 2000

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In Re The Application of:  
Gilbert M. Wolrich et al.

Serial No.: 09/042,417

Filed: March 13, 1998

For: Reduction of Add-Pipe Logic by  
Operand Offset Shift

Examiner: Firmin Backer

Art Unit: 2781

Cesari and McKenna, LLP  
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Boston, MA 02110  
July 19, 2000

"Express Mail" Mailing-Label Number: EL056746575US

Honorable Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

**REQUEST FOR RECONSIDERATION**

Initially, Applicants would like to thank the Examiner for his courtesy in granting the telephone interview that occurred on July 18, 2000, between Examiner Backer and Applicants' undersigned attorney. In the course of that interview, the participants discussed the Examiner's denial, dated July 5, 2000, of Applicants' request for reconsideration dated May 25, 2000.

In that request for reconsideration, Applicants pointed out that U.S. Patent No. 5,276,634 to Suzuki et al. did not disclose the differential pre-shift before mantissa addition that the claims defined. As that request explained, the segment of Applicants'

specification beginning on page 6's line 14 and continuing through page 7's line 15 explains that the mantissas for the same two numbers are both positioned one bit farther to the left when they are effective-subtraction operands than when they are effective-addition operands; i.e., there is a differential pre-shift before operands are applied to the main mantissa adder. The part of Applicants' specification beginning on page 15's line 18 explains the potential for significant circuit and operational simplification that this feature affords.

The previous request for reconsideration also pointed out why the Suzuki et al. excerpts cited by the Examiner as exemplifying the differential pre-shift before the mantissa addition actually contain no such disclosure.

In the Office action of July 5, 2000, though, the Examiner denied the request for reconsideration. The basis for the denial was the Examiner's belief that the claims define no pre-shift before mantissa addition. In response, Applicants' attorney explained during the course of the interview that claim 1 does indeed define a differential pre-shift before the mantissa addition. Specifically, lines 15 through 18 of claim 1 specify that "the mantissa signals applied to the main mantissa adder when the main mantissa adder is to subtract a pair of mantissas are offset to the left by one position from the mantissa signals applied thereto when the main mantissa adder is to add the same pair of mantissas."

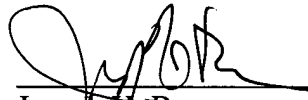
The Examiner indicated in response that he had not appreciated that it was this limitation to which Applicants' attorney referred in discussing the pre-shift and that it was this misunderstanding that had lead him to deny the request for reconsideration. He

then suggested that Applicants submit the instant request and indicated that he would consider the matter again.

For the reasons stated in the previous request, Applicants ask that the Examiner reconsider his rejection and allow all claims currently in the application. Additionally, Applicants request entry of the drawing amendments set forth in the accompanying Letter to the Official Draftsman. By that letter, Applicants have added a "FRAC" output to Fig. 4's main mantissa adder 34 to make it consistent with Fig. 12. Applicants have also added a dot in Fig. 5 to indicate that the left input to multiplexor 43's right port is FRAC\_A. The sentence beginning on page 6's line 16 makes it clear that this was intended in the application as originally filed. Also, Applicants have changed the names of the outputs of Fig. 6's blocks 74, 76, and 78 from SHIFTS\_A, SHIFTS\_B, and SHIFTS\_AB to SHIFT\_A, SHIFT\_B, and SHIFT\_AB for the sake of consistency with the outputs of Fig. 5's block 72. They have further revised Fig. 9 to eliminate an extraneous "\_AB" notation, and they have changed the name of the lower input to Fig. 11's gates 121 to DET\_AB for the sake of consistency with the input to Fig. 4's block 120. These amendments merely remove obvious inconsistencies and provide clarification, so Applicants request their entry.

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Respectfully submitted,



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